August 29 Federal/State Technical Collaboration Group Call

Updates to Air Quality Modeling

- Planning to use CAMx version 6.40 for the updated 2023 modeling.

- We are considering a number of possible ways of revising our approach for selecting model grid cells for use in calculating Relative Response Factors to project ozone design values. Up until now, we have followed the 3x3 matric approach described in the ozone attainment modeling guidance. The possible revisions we are considering include a modified form of the 3x3 grid cell matrix approach whereby we don't use model predictions from grid cells adjacent to a monitoring site that are identified as "water cells", that is grid cells with land use dominated by water. The water cells would be based on the water mask file used in the WRF meteorological modeling. We are also considering basing the projected design values on the model predictions in the grid cell containing the monitoring site rather than include model predictions from adjacent grid cells.

- We're considering revising the approach for choosing which days to select for calculating the average contribution metric. In the current approach, we calculate the average contribution metric based modeling data on future year exceedance days or the top 5 future year ozone concentration days, whichever is greater. The possible change would be to base the calculation on contributions from the same days that are used for projecting Relative Response Factors, that is the top 10 concentration days from the base year modeling. This approach would provide consistency between the days used to calculate RRFs and contributions and could also provide a more robust estimate of the average contribution.

- Finally, we are considering pulling in additional contribution metrics that could potentially be used to support a weight-of-evidence evaluation of linkages. The additional metrics might be framed in terms of some of the metrics EPA used in the multi-factor approach used in the NOx SIP Call. For example, these metrics could include the frequency and magnitude of contributions above certain amounts on individual days.